

## CLAIMS

What is claimed is:

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- 1 1. A computer system comprising:  
2 a first agent;  
3 a point to point half duplex interface coupled to the first agent; and  
4 a second agent coupled to the point to point half duplex interface,  
5 wherein the first agent is adaptable to transmit a signal to the second agent via a  
6 first component of the interface indicating the type of access of the interface the  
7 first agent is requesting.
  - 1 2. The computer system of claim 1 wherein the second agent is adaptable to  
2 transmit a signal to the first agent via the first component of the interface indicating the  
3 type of access of the interface the second agent is requesting.
  - 1 3. The computer system of claim 1 wherein the signal indicates that the request to  
2 access the interface is a critical request.
  - 1 4. The computer system of claim 1 wherein the signal indicates that the request to  
2 access the interface is a best effort request.
  - 1 5. The computer system of claim 3 wherein the first component of the interface is  
2 a preempt wire.

6. The computer system of claim 3 wherein the first agent preempts access of the interface by the second agent if the second agent is a best effort access or a timer corresponding to the second agent has expired.

1 7. The computer system of claim 3 wherein the second agent retains access of the  
2 interface if the second agent is a critical access and a timer corresponding to the second  
3 agent has expired.

1 8. The computer system of claim 5 wherein the preempt wire is a single, half  
2 duplex wire, shared by the first and second agents.

1 9. The computer system of claim 1 wherein the signal is adaptable to be upgraded  
2 from a best effort request to a critical request.

1 10. A computer system comprising:  
2 a memory control hub (MCH);  
3 a first point to point interface coupled to the MCH; and  
4 an input/output control hub (ICH) coupled to the point to point  
5 interface, wherein the MCH is adaptable to transmit a signal to the ICH via a  
6 first component of the interface indicating the type of access of the interface the  
7 MCH is requesting.

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1 11. The computer system of claim 10 wherein the ICH is adaptable to transmit a  
2 signal to the MCH via the first component of the interface indicating the type of access  
3 of the interface the ICH is requesting the MCH.

1 12. The computer system of claim 10 wherein the signal indicates that the request  
2 to access the interface is a critical request.

1 13. The computer system of claim 10 wherein the signal indicates that the request  
2 to access the interface is a best effort request.

1 14. The computer system of claim 12 wherein the MCH preempts access of the  
2 interface by the ICH if the ICH is a best effort access or a timer corresponding to the  
3 ICH has expired.

1 15. The computer system of claim 12 wherein the ICH retains access of the  
2 interface if the ICH is a critical access and a timer corresponding to the second agent  
3 has expired.

1 16. A method comprising:  
2 a first agent requesting a critical access to a point to point half duplex interface;  
3 determining whether a second agent has control of the interface;  
4 if so, asserting a preempt component of the interface at the first agent; and  
5 waiting for control of the interface to be granted to the first agent.

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1 17. The method of claim 17 further comprising granting control of the interface to  
2 the first agent if the second agent does not have control of the interface.

1 18. The method of claim 17 further comprising:  
2 the second agent sampling the asserted preempt component of the interface;  
3 determining whether the current access of the interface at the second agent is a  
4 critical access; and  
5 if not, relinquishing control of the interface by the second agent.

1 19. The method of claim 18 further comprising granting control of the interface to  
2 the first agent after the second agent has relinquished control.

1 20. The method of claim 18 further comprising:  
2 determining whether a timer has expired if the current access of the interface at  
3 the second agent is a critical access;  
4 if so, relinquishing control of the interface by the second agent; and  
5 granting control of the interface to the first agent.

1 21. The method of claim 18 further comprising:  
2 determining whether a timer has expired if the current access of the interface at  
3 the second agent is a critical access; and  
4 if not, retaining control of the interface at the second agent.

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